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To: Gary Lenhart/CARE/NPS@NPS
Date: Wednesday, September 03, 2003 12:31PM
Subject: spring & seep files

Gary, I am going to attach updated shape files, attribute tables etc. to this memo. Let me know if they work.

I made a few corrections to the spring and seep locations as I revised the attribute tables. As usual, ArcView gave me a few problems. After three attempts at creating a Source column that I could edit for the spring data, I gave up (col. width, string, etc. were all set correctly, but the source cols wouldn't accept text). So you got a notes col. instead for the spring data (don't ask me why it worked when the source col. wouldn't).

I use the presence or absence of flow to distinguish between springs seeps; i. e. if the feature produces a flow, even a small flow, into late summer, during years when precipitation has been about normal for several years, or it maintains a small pond, I consider it to be a spring. I consider areas characterized by wet soils that support sedges or rushes to be seeps. Seep zones at FOBU often exhibit slumping, or support vegetation like aspen which require higher levels of soil moisture. Not every stand of aspen is necessarily fed by seeps, but seeps supporting sedges, etc. do occur under aspen.

I am not sure what criteria Huntoon used to separate springs from seeps. I consider a few of the features he mapped as seeps to be springs. I'm not sure the seepage zones are as continuous as they appear to be on Huntoon's map, but the map is probably as good an approximation as one can get barring a detailed study.

I estimated the flow produced by the springs I visited during this year. Most are producing very little flow. There is a pond that covers an acre or more of land located north of the monument boundary in the N1/2, N1/2 Sect. 15. The pond dried up sometime in late Aug. or early Sep. of 2002 and it has been dry all of 2003 (if you ignore the small amount of snowmelt runoff it captured and held for a few weeks in April). I began working here in 1994, and this pond held water continuously from 1994 until the late summer of 2002 when it dried up. Others, who have worked here longer than I have, say they never saw it dry until last fall. That provides an indication of the severity of the 3-4 year-long drought we are experiencing.

Attachments:

4 springs	ArcView file	
4 seeps	"	(.dbf, .shx, .shp, .shx)